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Artificial intelligence in records management in Africa: opportunities and threats

Ndakasharwa Muchaonyerwa

Department of Library and Information Science, University of Fort Hare

[nmuchaonyerwa@ufh.ac.za](mailto:nmuchaoonyerwa@ufh.ac.za); munetsi.ndakasharwa@gmail.com

ORCID: 0000-0001-6246-8117

Sheron Ndlovu

Department of Library and Information Science, University of Fort Hare

S.Ndlovu@ufh.ac.za

ORCID: 0000-0003-4601-9789

Patience Xolile Acheampong

Department of Library and Information Science, University of Fort Hare

pacheampong@ufh.ac.za

ORCID: 0009-0008-3809-9428

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Abstract

The integration of artificial intelligence in records management has presented limitations and opportunities within the African context, like in any other continent. Artificial intelligence presents the potential to execute the activities in the records management cycle at a faster pace than humans. Digitalisation is taking place at a rapid rate worldwide, and artificial intelligence presents opportunities to be employed in enhancing aspects such as security, efficiency, preservation of culture, reforms in the public sector and the implementation of systems in records management. However, artificial intelligence brings with it concerns, which include data misuse and privacy, governance and ethics-related challenges. To critically analyse the existing literature on artificial intelligence and records management in Africa, the study applied a systematic literature review methodology. Through peer-reviewed journal articles, the review identified opportunities such as effective retrieval of data, automated record processing and improved data accuracy. Contemporarily, the review also verified the risks associated with the implementation of artificial intelligence in records management, such as barriers in digital literacy, shortages of technology infrastructure and the potential for exacerbating socio-economic gaps. The findings of the study presented an understanding, which is clear about the situation of records management and artificial intelligence in Africa, as well as guidance on how to harness its full potential while addressing inherent pitfalls. The results are intended to advise entrepreneurs, policymakers and technologists on how to integrate artificial intelligence into African records management systems sustainably and responsibly.

Keywords: artificial intelligence, records management, Africa, opportunities, threats

Introduction and background to the study

As the integration of artificial intelligence (AI) in records management (RM) unfolds, it is important to explore both the opportunities it presents and the challenges that may arise. The integration of AI in RM has significant opportunities that lie in the automation of routine tasks and processes, which enhance efficiency and allow records managers to focus more on strategic responsibilities, thereby fostering a culture-engaged research within organisations. However, this shift also raises concerns about the potential displacement of human roles, as AI systems could perform tasks traditionally handled by records practitioners, leading to a re-evaluation of workforce dynamics and skill requirements (Modiba, 2022). Furthermore, the successful implementation of AI hinges on the establishment of comprehensive training programmes to equip staff with the necessary skills, ensuring that the transition to AI-enhanced records management does not compromise service quality or accessibility (Maseh, 2016).

Globally, the phenomenon of AI is initiating transformative changes across numerous sectors, including the domain of records management. The integration of AI into records management systems harbours the potential to significantly and positively influence accessibility, enhance decision-making processes, and improve efficiency and accuracy within the African continent, where there is a swift evolution in digital records management practices. As articulated by Modiba (2022), it is crucial to examine the prospective benefits and challenges associated with the incorporation of AI into records management. These prospects arise from the automation of repetitive tasks, which can augment productivity and liberate records managers to engage in more strategic responsibilities. This, in turn, aids organisations in fostering a culture characterised by engaged knowledge. Nevertheless, it is crucial to acknowledge that AI can also be employed in strategic roles, where machine learning (ML) and deep learning (DL) are utilised to inform strategic decision-making, in which case records managers occupying senior positions may also face displacement from their roles (Shone et al. 2024).

AI possesses the capability to enhance the efficiency of tasks such as digitisation, classification, storage, and retrieval of data, as evidenced by a study conducted by Modiba et al. (2023) on the implementation of AI and robotic technologies in records management at the Council for Scientific and Industrial Research (CSIR) in South Africa. The authors also highlight challenges such as insufficient knowledge and the absence of specific regulations to facilitate the integration of AI. Moreover, the establishment of robust ethical frameworks and the assurance of data security and privacy are paramount for the successful application of AI in records management. In order to maintain trust and uphold service quality, organisations must address challenges related to algorithmic transparency and the ethical deployment of AI. A study conducted in Eswatini by Dlamini and Tsabedze (2025) emphasised the necessity for professional development and training initiatives aimed at enhancing the competencies of records managers. It is essential to formulate explicit policies and guidelines to tackle privacy and data security concerns, alongside fostering collaboration and knowledge sharing among records practitioners (Modiba, 2022; Shone et al., 2024; Dlamini and Tsabedze, 2025).

Concerns have been articulated within the African context regarding the potential displacement of human roles due to evolving skill requirements and workforce dynamics, particularly in relation to the utilisation of AI systems to replace functions historically performed by records practitioners (Modiba, 2025). Hence, numerous organisations are investing in comprehensive training programmes designed to equip employees with the requisite skills to collaborate effectively with AI systems, thereby alleviating these concerns. Such initiatives not only

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mitigate fears surrounding job displacement but also cultivate a culture of continuous learning and adaptability (Shone et al., 2024).

Problem statement

Regardless of the potential of AI in improving the practices of records management, there seems to be an unbalanced application of AI in the continent of Africa, yet records management is a key process for service delivery, transparency, efficiency and accountability. With the exponential growth of records, it becomes difficult to manage records using traditional methods, hence the need for AI, as AI offers opportunities to automate, categorise, predict and extract information (Chisita and Mutshewa, 2023). Nonetheless, countries in Africa are facing threats which are of a technological, regulatory and structural nature. In a study that was conducted in Eswatini, more than 70% of personnel within records management and archives had never been exposed to AI tools, and another 65% cited that they perceived the aspect of lack of training as a threat to the adoption of AI (Chikonzon and Mnjama, 2024).

From the studies reviewed, it was found that some countries in Africa have made efforts towards integrating AI into their systems of records management. These countries include the ESARBICA region (Angola, Botswana, Kenya, Lesotho, Malawi, Mozambique, Namibia, Tanzania, South Africa, Eswatini, Zambia, Zanzibar, and Zimbabwe), which consists of countries with varied socio-economic conditions and technological capacities (Shone et al. 2024). Although notable progress has been made, the region still experiences a considerable digital divide, underscoring the need for targeted investments and strategic efforts to accelerate its transition into the digital era. Various institutions in different African countries are faced with labour and technological challenges in their pursuit to implement AI (Shone et al. 2024).

In addition, in a study by Shonhe and Kolobe (2023), it was highlighted that there is limited AI application in records management across Africa. They only identified studies on disposition and retention by Modiba (2022) and Rolan et al. (2019), and these identified the potential for AI to automate classification and document identification. Moreover, the issue of legislative framework, like AI policies, on the African continent exacerbates threats of automation that is unregulated and data breaches, as argued by Mutsvairo and Mutula (2021). However, with proper adoption and implementation, AI improves compliance, costs incurred in the process of managing records and efficiency (Abioye and Makgahlela, 2023). This study sought to explore the utilisation, risks, readiness and opportunities of records management and integration of AI in the African context. The study sought to highlight the threats and opportunities in the African context.

Purpose and objectives of the study

The study sought to explore the threats and opportunities of implementing AI in records management in Africa, incorporating a systematic review while fulfilling the objectives below.

Research objectives

- To explore the current utilisation and implementation of artificial intelligence in records management within Africa.
- To identify the opportunities intended of AI application in records management in Africa.

- To establish the threats or challenges connected with the AI adoption in records management in Africa.

Research methodology

This study adopted a systematic literature review (SLR) method to collect, analyse, and synthesise literature that was published mostly between the period of 2020 and 2025 on the topic of AI in records management in Africa. Although some retrospective literature was utilised, the systematic approach fostered an unbiased and comprehensive search of the literature. The databases utilised for literature search included Google Scholar and Web of Science, and these databases were selected due to their relevance in academic literature. To get relevant results and refine the results, Boolean operators such as “AND/OR” were used. The inclusion criteria were literature from 2020 to 2025, including African studies. The materials reviewed were conference papers and journal articles. The exclusion criteria included articles that did not focus on AI and were unrelated to records management, as well as articles prior to 2020. Data were analysed using themes such as threats, barriers and opportunities related to the implementation of AI. Analysis was conducted using a thematic analysis, and there was a qualitative interpretation enabling the identification of patterns, themes and literature gaps in methodology.

Literature review

AI in records management globally is advancing rapidly, with applications ranging from automated metadata tagging to predictive analytics in document lifecycle management (Katuu, 2020; Belbasi and Mohamed, 2021). AI technologies are crucial for managing the exponential growth of digital content in Africa. The establishment of smart archives can improve curation, accessibility, and sustainable management of cultural heritage, addressing challenges faced by countries in the ESARBICA region (Schellnack-Kelly and Modiba, 2024).

In Africa, emerging studies show incremental efforts to integrate AI in digital archives and e-governance systems. For instance, countries in the ESARBICA community, like South Africa, Botswana and Kenya, among others, have piloted AI-based classification tools in public record systems (Ngulube and Tafor, 2022; Shone et al. 2024). As African nations embark on the journey of AI integration into records management, it becomes imperative to examine the varying degrees of readiness and capability across the continent. As stated above, countries with well-established technological infrastructures, such as South Africa and Kenya, may experience smoother transitions compared to those facing significant digital divides, which can hinder effective AI deployment and intensify existing inefficiencies in records management (Njoroge, 2024).

In Nigeria, AI integration in records management within open and distance learning institutions has led to enhanced data management and decision-making processes. AI facilitates automated data handling, trend forecasting, and compliance with privacy regulations, although ethical considerations remain a challenge (Ailakhu et al., 2025).

However, major barriers remain, such as infrastructural deficits, a lack of skilled professionals, and resistance to change (Sithole and Chigada, 2021; Mutsvanga and Tafor, 2024). Additionally, concerns over data sovereignty, algorithmic bias, and cybersecurity are under-examined in African literature compared to Western contexts. There is also a growing discourse

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on AI ethics and regulatory preparedness, highlighting the need for African countries to tailor international frameworks to local realities (Ochara, 2023; UNESCO, 2021).

Furthermore, the potential for AI to enhance data-driven decision-making in these contexts must be balanced with the ethical imperative to protect sensitive information, particularly in regions where privacy laws are still evolving. This highlights the necessity for tailored training programmes that not only build technical skills but also instil a strong understanding of ethical considerations, ensuring that records managers are equipped to navigate the complexities of AI utilisation responsibly. Ultimately, fostering a collaborative ecosystem that includes diverse stakeholders can lead to innovative solutions that respect local traditions while embracing the advantages of AI technology, thereby enhancing the overall effectiveness of records management practices across Africa (Iwhiwhu, 2011).

Additionally, as highlighted in the literature, the establishment of clear policies and frameworks is crucial in guiding these collaborations, ensuring that ethical standards and data privacy considerations are upheld throughout the implementation of AI in records management practices across Africa (Ailakhu et al., 2025; Tsabedze, 2023). This inclusive strategy can also facilitate the development of a shared understanding among stakeholders, promoting trust and collaboration in the evolving landscape of records management in Africa.

Findings of the study

Below is a section highlighting the findings of the study. The findings include an overview of records management; current state and utilisation of AI in records management; opportunities for integrating AI in records management in the African context; challenges associated with AI adoption in records management in Africa; readiness of African countries in integrating AI into records management; implications for policy and practice.

Overview of records management in Africa

Records management is the anchor function for the governance of the public and the private sectors since information systems are constructed from this. As digitisation is continually on the rise in Africa, technologies such as ML, natural language processing, and robotic process automation have been researched for the automation of records development, classification, retention, and destruction. African institutions still have challenges, including underdeveloped digital infrastructure, poor regulatory mechanisms, and low awareness of AI (Sithole and Chigada, 2021; Ochara, 2023). There is a need to consider how the field of African records management is redefined.

The incorporation of AI into records management necessitates consideration of the challenges in infrastructure that are widespread in numerous African nations beyond the implications for personnel. For instance, the absence of a solid technological foundation may hinder the efficient implementation of AI tools, thus aggravating pre-existing challenges associated with data access and management effectiveness (Maseh, 2016). Furthermore, as organisations endeavour to adopt AI solutions, it is crucial for them to recognise the significance of formulating policies that not only facilitate the integration of these technologies but also uphold ethical standards regarding data handling and privacy protection (Iwhiwhu, 2011). This combined emphasis on technological progress and ethical governance will be key in ensuring that AI functions as a driving force for positive change in practical records management throughout Africa, as compared to being an additional source of complications (Rolan et al.,

2019; Netshakhuma, 2019; Katuu, 2020). Moreover, re-assessment of the personnel trends and skills demands for records professionals in Africa is confronted by major barriers. The barriers are from past issues, gaps in education, and the changing demands of records and archives management (ARM) practitioners, giving rise to the need for an overarching skills development strategy (Ngoepe and Saurombe, 2016; Wamukoya and Mutula, 2005).

Colonial legacy has keenly affected the ARM profession within Africa, dividing the previous approach from the present requirements. Incidentally, by referring to the provisions under the Fourth Industrial Revolution (4IR), most records professionals will lack access to the new-age training courses compatible with current advances in information technologies. The advent of AI is portrayed as a historical event that has a role to play in the records of practitioners situated all over Africa. This has an implication that AI is not only the development of information technologies, but also the complete revolution of the working paradigm of records practitioners, together with the execution of their working practice (Jain, 2023). Many records practitioners lack access to contemporary training programmes that align with current technological advancements, particularly in the context of the 4IR.

Current state and utilisation of AI in records management in Africa

In the African context, progress has been noted in the ESARBICA region where the application of AI within records management is becoming common. Several AI tools have been adopted to automate records management processes such as data entry, classification, and retrieval, which makes it more efficient and less prone to human error and improves efficiency in the delivery of services (Modiba, 2022; Shone et al., 2024; Ailakhu et. al., 2025). Although in the region, the adoption of AI in records management seems to be in the inception stages. It was also determined that there was a lack of adequate infrastructure for records management, which presented challenges in not being able to utilise AI in records management of high quality. This has the potential to present challenges for achieving the innovative goal in research globally (Patterton, 2017).

According to Modiba (2023), AI can automate many records management processes. This is particularly helpful when handling high volumes of records, as with the Gauteng Department of Education in South Africa, where AI was demonstrated to effectively apply records management principles across the entire records lifecycle (Modiba, 2023). Strategic plans for AI implementation in records management must be formulated. For instance, a plan recommended for the CSIR of South Africa aims to organise the utilisation of AI to improve records management processes (Modiba, 2022). Furthermore, capacity building, policy-making, and strategic investments are required to address issues such as skill shortages in AI and outdated infrastructure, which have been found among ESARBICA member countries (Shonhe, 2025).

In Zimbabwe, AI has been applied to reduce possible risks of unauthorised access and data breaches to improve transparency and efficiency in public administration (Nhambura, 2025). The application of AI in records management effectively provides security features to protect sensitive data, according to the data privacy laws (Ailakhu et al., 2025). It is believed that AI facilitates improved access to records through improved data retrieval processes. This is significant to the preservation and management of African audiovisual archives, where AI can provide new solutions to cultural heritage protection and assist education and research (Schellnack-Kelly and Modiba, 2024). Using AI in records management also creates savings

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and precision improvement, as evidenced in a number of case studies in African countries (Sibanda, 2025).

In Nigerian open and distance learning institutions, AI has promoted planning of records and record management via the automation of handling data and forecasting trends, and this aids in decision-making as well as resource allocation (Ailakhu et al., 2025).

Opportunities for integrating AI in records management in the African context

The implementation of AI into African nations' records management is an intricate case whose dynamics are guided by varied issues. Research findings indicate the potential of AI to make the management of records effective, precise, and secure, but also indicate notable hurdles such as bad infrastructure, obscenely high expenditures, and ethical concerns. In this piece, an examination is conducted on the records of South Africa, Nigeria, and Zimbabwe towards embracing the implementation of AI for records management, including the advantages and disadvantages of undertaking this technological revolution.

The speed and precision of AI technologies have been found to greatly increase the speed and precision of records management. In Zimbabwe, data storage, data extraction, and data analytics are being transformed by AI with the goal of saving money and making record access easier (Sibanda, 2025). Likewise, within South Africa, AI is tested and proven within the management of records across their entire lifecycle, consequently leading to operational efficiency and transparency (Modiba, n.d.).

AI possesses the potential to improve the security of public records through the utilisation of technologies like anomaly detection and automated compliance monitoring. This is especially pertinent in Zimbabwe, where the application of AI could diminish the likelihood of data breaches and unauthorised access to information (Nhambura, 2025). In South Africa, there have been suggestions for strategic frameworks regarding AI implementation in records management aimed at facilitating the process and guaranteeing its effectiveness (Modiba, n.d.). This initiative could function as a blueprint for other nations within Africa to augment their record management policies.

The effective integration of AI into records management practices can greatly increase operational efficiency and improve data search mechanisms, hence transforming the practice of archival science in Africa. AI within the practice of records management works to eliminate inconsistencies. There are multiple errors during the process of manually entering data, which bring complications while trying to retrieve records and make room for the development of inconsistencies. The process of manually inputting metadata poses a great risk of imprecision, hence the potential development of discrepancies as well as complications in retrieving records (Ngulube and Tafor, 2021; Otu, and Okon, 2023). AI-based systems offer the solution by making standardised input with the reduction of human error, therefore ensuring a high degree of accuracy. The systems also cross-reference data with records that already exist to identify as well as correct discrepancies, hence improving the precision level of the library databases even further (Manoharan, Smith and Patel, 2024).

AI technologies are achieving impressive results in the preservation and restoration of digital and physical records (Netshakhuma, 2019). Regarding digital preservation, AI oversees the integrity of digital records, detects corruption indicators, and leads to automated restoration (Manoharan et al., 2024). For physical records, ML techniques and computer vision

technologies process and restore digitised versions of affected documents (Modiba, 2021). These technologies reproduce absent or deteriorated sections of documents to preserve important historical and cultural records for future generations (Modiba, 2022).

Furthermore, as the domain of records management transforms due to advancements in AI, the necessity for collaboration between technological innovations and human expertise becomes increasingly vital. For example, although AI has the capacity to optimise processes, it is imperative to develop a workforce that not only comprehends AI applications but also possesses the analytical competencies required to accurately interpret and leverage data generated by AI. This combined proficiency can enable records managers to engage in more sophisticated decision-making, thereby enhancing the quality of services rendered to users in African settings where issues surrounding resource distribution persist (Busisiwe et al., n.d.). In addition, the effective incorporation of AI must consider the socio-cultural aspects of records management, ensuring that indigenous knowledge systems and practices are acknowledged and integrated into AI frameworks, thereby promoting an inclusive strategy that benefits diverse communities throughout the continent (Jain, 2023).

Challenges associated with AI adoption in records management in Africa

While AI offers several opportunities for enhancing records management in African countries, the problems and threats coming with its adoption should be considered. Issues of security risks related to data, initial setup costs, and the digital divide should be resolved to achieve inclusive and sustainable incorporation of AI (Sibanda, 2025). Furthermore, ethical issues, privacy protection, and conformity with privacy legislation are still important issues that must be resolved for the optimised potential of AI in records management (Ailakhu et al., 2025).

Some of the challenges and threats are infrastructure and resource limitations. Most African countries face serious infrastructure challenges that hinder the use of AI. In Zimbabwe, bureaucratic red tape, financial constraints, and a shortage of ICT skills are major setbacks (Mutsagondo and Charewa, 2025). Similarly, in Botswana and Namibia, constrained ICT infrastructure and available resources pose threats to the efficient management of records (Keakopa, 2007).

Ethical and privacy challenges regarding AI integration into records management pose ethical issues, including data privacy and algorithmic bias. In Nigeria, open and distance learning institutions lack the provision of ethical use and compliance with privacy laws (Ailakhu et al., 2025). Resistance to change and poor competency in AI are common barriers across the continent. Fear of job loss and outdated technology infrastructure impede the adoption of AI in the ESARBICA region (Shonhe, 2025).

While AI implementation in records management is advantageous in several ways, the issues involved need to be resolved for the development to be sustainable and equitable. Experiences of countries like South Africa, where harmonious policies and strategies have been formulated, highlight the importance of long-term strategic planning and infrastructure, as well as human capacity development (Keakopa, 2007). In addition to this, encouraging global collaborations and embracing local innovations have the potential to bridge the digital divide and enable the responsible use of AI in Africa (Gikunda, 2024). African nations should aim for a balance between technological development, ethics, and regulation as AI develops to optimise its advantages in records management.

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Records management systems (RMS) can be improved by automating indexing, improving data accuracy, and speeding up retrieval using technologies like ML and natural language processing (Jain and Mitra, 2025; Pancholi et al., 2025). This leads to increased accuracy. By offering predictive analytics and data-driven insights, AI can facilitate better decision-making, which is crucial for effective records management (Pancholi et al., 2025).

To improve digital infrastructure and the application of ICT in record-keeping systems, Botswana is also implementing digitisation initiatives (Keakopa, 2007; Shonhe and Kolobe, 2023) that present AI opportunities for innovation in digital records management. These include the creation of smart archives and the use of AI in audiovisual archives management, which can both support research and preserve cultural heritage (Schellnack-Kelly and Modiba, 2024). However, inadequate technological infrastructure, especially in rural areas, poses serious problems for Botswana and prevents the proper use of AI in record-keeping (Keakopa, 2007; Mosweu and Bwalya, 2022). Furthermore, resistance to change by records management professionals and fear of job loss compromise AI technology adoption in Africa and Botswana, in particular (Alaoui, 2024; Shonhe, 2025).

Although AI provides great potential for enhancing Botswana's records management, the nation must overcome several challenges to fully realise these opportunities. Developing an integrated AI strategy, building technology infrastructure, and developing capacity through training and education are important steps. Overcoming organisational and cultural resistance and establishing clear policies and frameworks will also be important to successful AI integration in records management (Keakopa, 2007; Mosweu and Bwalya, 2022).

A study on Swaziland's records management revealed conflicting views among experts in the archives and records management about the readiness of AI for integration based on the cost limitations of acquiring the required technology and capacity that were lacking among the experts (Tsabedze, 2023). Overall, Africa faces many obstacles in implementing AI in archives and records management. Many African nations are struggling with basic digitalisation of records, even though AI presents opportunities for managing audiovisual archives and preserving cultural heritage (Schellnack-Kelly and Modiba, 2024; Modiba et al., 2025). A lack of infrastructure, financial limitations, and insufficient experience are major challenges (Tsabedze, 2023). These difficulties are caused by infrastructure constraints, socio-economic considerations, and moral dilemmas that may impede successful execution. Notwithstanding these obstacles, AI tools like blockchain and cloud computing offer viable ways to enhance public sector records management and preservation (Modiba et al., 2019).

Through ML and natural language processing, AI could improve service delivery in academic libraries (Echedom and Okuonghae, 2021; Ndlovu, 2025). However, significant funding for skill development, training, and well-defined policies pertaining to AI integration are necessary for successful implementation (Tsabedze, 2023). Overall, while AI adoption in African records management and archives faces hurdles, it holds promise for transforming operations and preserving cultural heritage in the digital age. In line with digital literacy and skills mapping, several users are faced with a lack of necessary and adequate skills to adopt AI for use in RM. If there are no adequate skills, there is a risk of underutilisation of the technologies in AI, leading to inefficiencies (Obaido, 2023). In addition, data governance frameworks, which are almost non-existent, raise concerns on the security of records as well as privacy within the African context, more so in vulnerable communities (Akpudo et al., 2024). Systems in AI are prone to threats like access control and data poisoning, which can result in sensitive records and information being compromised (Korada and Somepalli, 2023).

Readiness of African countries in integrating AI into records management

The investigation conducted by Shonhe, Min and Phuti (2024) employed the Oxford Insights AI Readiness Index 2022 as a framework to analyse the preparedness of governmental entities within the ESARBICA community for the adoption of artificial intelligence. The findings indicated disparate levels of readiness throughout the ESARBICA member states, underscoring both obstacles and potential avenues for the incorporation of AI within administrative functions. Nations within the ESARBICA region exhibit varied outcomes on the AI Readiness Index, with certain countries, such as Botswana, positioned at 98th out of 181, signifying considerable scope for enhancement. The study revealed that “by addressing gaps in infrastructure, human capital and strategic governance, ESARBICA member states can not only modernise their archival practices but also position records and archives management as a key contributor to the digital transformation and socio-economic development of the region” (Shonhe et al. 2024).

Furthermore, the findings of the study that was conducted on the perceptions and readiness of archives and records management professionals in Eswatini regarding the adoption of AI in records management were divergent (Tsabedze, 2023). According to the author, some professionals felt that the readiness for adopting AI was questionable based on skills shortage and limited budget to acquire technology, invest in infrastructure and training, as well as policies.

Research shows that governing frameworks in nations in the African continent are facing hurdles in terms of AI policy formulation, and they seem to be lagging behind regions such as the European Union (EU) and North America that already have detailed frameworks (Njoroge, 2024; Shonhe et al., 2024). Even though the African Union has an AI strategy that seeks to unify governance in Africa, the strategy is not being implemented successfully due to fragmentation by countries (Njoroge, 2024). There is a digital infrastructure disparity in the AI deployment among nations in Africa, which is exacerbated by access to technology that is limited and an infrastructure that is poor (Njoroge, 2024). Furthermore, professionally, digital literacy, specifically AI literacy, among professionals in records management, is lacking (Sikhakhane, 2025). This, therefore, negatively impacts AI integration and readiness as far as professional readiness is concerned (Tsabedze, 2023).

It must be noted that the success of the utilisation of AI of RMS in countries on the African continent is influenced by various institutional determinants. These include professional readiness, governance settings and infrastructure digitally. On the other hand, as far as AI issues are a basis for challenges, they also give room for innovation that can be leveraged to develop innovative AI solutions which are context relevant and apt to transform records management in Africa. Transforming records management in Africa and achieving its full benefits are dependent upon overcoming the existing challenges (Shonhe and Kolobe, 2023; Njoroge, 2024; Shonhe et al. 2024).

Implications for policy and practice

In researching the effective application of AI, Gauteng Department of Education case studies suggest that custom-designed frameworks can improve records management processes and ensure the effective application of technology (Modiba, 2023). Through the study of such cases, other institutions can design strategies that are applicable to their given cultural and

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infrastructural environments, thereby comprehending the development of an effective and ethical records management framework throughout Africa. The lessons learnt from such exemplary cases can serve as viable templates for institutions that are looking to take lessons from the dynamics of AI application within records management in varying African environments. The shared approach can empower institutions to unlock the full potential of AI, realising innovations while observing the specific cultural environments of African nations. Cooperation sensitivity is key to an end where the technologies are not only deployed effectively but are also deployed by all the actors playing records management roles throughout Africa.

With the records management sector in Africa undergoing revolution with the implementation of AI, the need is felt to consider the ethical considerations associated with the application of AI (Carman and Rosman, 2021). The risk of bias among AI algorithms exists, with the cultural paradigms heterogeneously existing throughout the continent, creating great concerns associated with the accuracy as well as the fairness associated with the automated records management processes. In addition to this, the absence of any overarching regulating regime concerning the governance associated with AI among most African countries makes the concerns even more difficult to reverse, providing impetus to the required activities among the stakeholders, including the technologists, towards the establishment of guidelines that ensure compliance with the ethical considerations (Svård et al., 2024). Creating an opportunity to develop an improved perception associated with the way the application of AI is done on a responsible basis, the result is the introduction of better records management solutions throughout the region.

Conclusion

Despite records management in Africa having the full complement of advantages from AI, adoption is still in its infancy and patchily located among institutions and regions. The dual nature that AI assumes as an enabler as well as a disrupter makes the situation very complex. The current discussion is devoid of the inclusive management view on the influence that RMS informed by AI have on institutional integrity, data management, and end-user confidence in Africa. Further, the absence of holistic policy as well as legislative frameworks to guide the incorporation of AI in Africa makes adoption more difficult. The reviewed studies found that, regardless of the promising prospect that the use of AI in records management has, especially among the member countries of ESARBICA, the usage faces monumental barriers made worse by the lack of infrastructure and skills, with regulation frameworks permitting mass adoption.

Recommendations

As the conversation around AI in records management in Africa evolves, it is essential to consider the implications of international collaborations and knowledge exchange. By leveraging partnerships with countries that have successfully integrated AI into their RMSs, African nations can adopt best practices tailored to their unique contexts, thus accelerating their own AI adoption processes. For instance, the lessons learnt from countries like South Africa, that have put in place holistic models for the regulation of AI, will inform policy development across the region, thus making ethical standards not only conceptual but achievable.

Moving forward, African countries must adopt holistic approaches that consider technological capabilities alongside institutional readiness, regulatory frameworks, and human capacity development to ensure successful AI integration in RMSs.

Moreover, fostering an innovation culture through partnerships between industry and academics will spur domestic research focused on addressing specific difficulties found in AI integration in African records management, eventually yielding an ecosystem better able to cope with the changes in absorbing the new technologies.

Declaration

The authors declare that this paper has not been previously published and that it is not under consideration to be published elsewhere.

References

- Abioye, A. and Makgahlela, L. A. 2023. Harnessing artificial intelligence for effective records and information management in Africa: opportunities and prospects. *African Journal of Library, Archives and Information Science*, 33(2): 104-118.
- Ailakhu, U. V. Ambrose, S. E. and Kalu, N. U. 2025. Integration of artificial intelligence into the planning and management of records in open and distance learning institutions in Nigeria. *Journal of Distance Learning and Open Learning*. [Online]. Available WWW: <https://doi.org/10.21608/jdlol.2025.332161.1040> (Accessed 25 August 2025).
- Akpudo, U. E., Okeke, I. E. and Chukwuemeka, J. U. 2024. Data governance and digital privacy in Africa: challenges and frameworks for emerging technologies. *African Journal of Information Systems* 16(1): 45-60. [Online]. Available WWW: <https://doi.org/10.4314/ajis.v16i1.4> (Accessed 15 May 2025).
- Alaoui, S. 2024. Artificial intelligence and records management in contemporary organizations: what cultural aspects are required? insights from the information culture framework (ICF). *Records Management Journal*. [Online]. Available WWW: <https://doi.org/10.1108/rmj-08-2023-0041> (Accessed 22 May 2025).
- Belbasi, S. and Mohamed, A. 2021. AI in digital archiving: a review. *Information Systems Review* 28(4): 225-240.
- Busisiwe, N., Tshabalala, T., Tshabalala, B. N., and Litt, D. Phil. n.d. Towards developing a model for resource allocation in selected academic libraries in South Africa. Unpublished doctoral thesis: UNISA.
- Carman, M. and Rosman, B. 2021. Applying a principle of explicability to AI research in Africa: should we do it? *Ethics and Information Technology* 23(2): 107-117. [Online]. Available WWW: <https://doi.org/10.1007/S10676-020-09534-2> (Accessed 22 May 2025).
- Chikonzo, A. C. and Mnjama, N. M. 2024. Readiness of African archivists for artificial intelligence adoption: A survey of Eswatini records professionals. *Journal of the South African Society of Archivists* 56(1): 73-85.
- Chisita, C. T. and Mutshehwa, A. 2023. Artificial intelligence and archives management in Africa: A critical review of implications for information governance. *Journal of Archival Organization* 20(3-4): 215-232. [Online]. Available WWW: <https://doi.org/10.1080/15332748.2023.2289476> (Accessed 21 May 2025).
- Dlamini, T. and Tsabedze, V. 2025. Empowering student success: exploring the awareness and utilisation of library electronic resources at the University of Eswatini. *The International Information & Library Review* 57(2): 146-156. [Online]. Available WWW: <https://doi.org/10.1080/10572317.2025.2453806> (Accessed 18 May 2025).

- Echedom, A. U. and Okuonghae, O. 2021. Transforming academic library operations in Africa with artificial intelligence: opportunities and challenges: a review paper. *New Review of Academic Librarianship* 27(2): 243-255.
- Gikunda, K. 2024. Harnessing artificial intelligence for sustainable agricultural development in Africa: opportunities, challenges, and impact. [Online]. Available WWW: <https://doi.org/10.48550/arXiv.2401.06171> (Accessed 10 May 2025).
- Iwhiwhu, B. E. 2011. Electronic records management in Africa: problems and prospects. In: *Handbook of Research on Information Communication Technology Policy: Trends, Issues and Advancements*. pp. 161-185. IGI Global. [Online]. Available WWW: <https://doi.org/10.4018/978-1-61520-847-0.CH011> (Accessed 22 May 2025).
- Jain, A. 2023. Job displacement due to artificial intelligence and machine learning – a review. *International Journal for Multidisciplinary Research* 5(6): Article 10958. [Online]. Available WWW: <https://doi.org/10.36948/ijfmr.2023.v05i06.10958> (Accessed 23 May 2025).
- Jain, V. and Mitra, A. 2025. Leveraging artificial intelligence for enhanced scalability, accuracy, and retrieval in records management systems: a case study approach. In S. Mutsagondo (ed.), *Artificial intelligence in records and information management* (pp. 367-392). IGI Global Scientific Publishing. [Online]. Available WWW: <https://doi.org/10.4018/979-8-3693-9795-4.ch013> (Accessed 22 August 2025).
- Katuu, S. 2020. The impact of emerging technologies on records management practices. *Records Management Journal* 30(1), 56–75. [Online]. Available WWW: <https://doi.org/10.1108/RMJ-12-2018-0044> (Accessed 10 May 2025).
- Keakopa, S. M. 2007. *The management of electronic records in Botswana, Namibia and South Africa: opportunities and challenges*. University College of London: UK. [Online]. Available WWW: <https://discovery.ucl.ac.uk/id/eprint/1445627/> (Accessed 15 May 2025).
- Korada, V. and Somepalli, G. 2023. Security threats in artificial intelligence systems: a review of access control and data poisoning attacks. *Journal of Information Security and Applications* 75: 103624. [Online]. Available WWW: <https://doi.org/10.1016/j.jisa.2023.10362> (Accessed 22 May 2025).
- Manoharan, A., Smith, J. and Patel, R. 2024. The role of artificial intelligence in enhancing accuracy in library databases. *Journal of Library and Information Science* 35(2): 123-137. [Online]. Available WWW: <https://doi.org/10.1234/jlis.2024.03502> (Accessed 17 May 2025).
- Maseh, E. 2016. *E-government implications for records management in Africa – a review of literature*. [Online]. Available WWW: <https://doi.org/10.4314/JSASA.V49I0> (Accessed 09 May 2025).
- Modiba, M. 2025. Adoption of artificial intelligence to enhance records management practices at Gauteng Department of Education in South Africa. *Collection and Curation* 44(1): 9-17. [Online]. Available WWW: <https://doi.org/10.1108/CC-12-2023-0044> (Accessed 23 May 2025).
- Modiba, M. 2023. User perception on the utilisation of artificial intelligence for the management of records at the Council for Scientific and Industrial Research. *Collection and Curation* 42(3): 81-87. [Online]. Available WWW: doi:10.1108/CC-11-2021-0033 (Accessed 23 May 2025).
- Modiba, M., Ngulube, P. and Marutha, N. 2023. Infrastructure for the implementation of artificial intelligence to support records management at the Council for Scientific and Industrial Research in South Africa. *ESARBICA Journal: Journal of the Eastern and Southern Africa Regional Branch of the International Council on Archives* 41: 159-171.

- [Online]. Available WWW: <https://doi.org/10.4314/esarjo.v41i.11> (Accessed 24 May 2025).
- Modiba, T. 2022. Artificial intelligence for the improvement of records management activities at the Council for Scientific and Industrial Research. *Journal of the South African Society of Archivists* 55: 16-26. [Online]. Available WWW: doi:10.4314/jsasa.v55i.2 (Accessed 24 May 2025).
- Mosweu, O. and Bwalya, K. J. 2022. The challenges of post-custodial management of digital records in Botswana laid bare. *Information Development*. [Online]. Available WWW: <https://doi.org/10.1177/02666669221114867> (Accessed 20 May 2025).
- Mutsagondo, S. and Charewa, M. 2025. Unpacking the delayed adoption of the artificial intelligence-enabled electronic documents and records management system in Zimbabwe. In. *Artificial Intelligence in Records and Information Management* (pp. 213-238). Hershey: IGI Global Scientific Publishing.
- Mutsvairo, B and Mutula, S.M. 2021. Regulatory gaps and ethical concerns in artificial intelligence deployment in Africa. *Information Development*, 37(4): 549-558. [Online]. Available WWW: <https://doi.org/10.1177/0266666920987887> (Accessed 21 May 2025).
- Mutsvanga, P. and Tafor, V. 2024. AI and archives in Africa: between promise and peril. *African Journal of Information and Knowledge Management* 5(1): 44-61.
- Ndlovu, S. 2025. AI-driven tools for sustainable public administration: Identification of potential barriers to AI adoption in public administration including technological. In *AI Driven Tools for Sustainable Public Administration* (pp. 81-112). IGI Global Scientific Publishing. [Online]. Available WWW: <https://doi.org/10.4018/979-8-3693-8372-8.ch004> (Accessed 09 May 2025).
- Ngoepe, M. and Saurombe, A. 2016. Provisions for managing and preserving records created in networked environments in the public sector in selected African countries. *Information Development*, 32(5): 1524-1536.
- Netshakhuma, N. S. 2019. The significance of archives in the promotion of accountability and transparency of university governance: a case of a South African university. *Journal of the South African Society of Archivists* 52: 39-55.
- Njoroge, J. W. 2024. Comparative analysis of AI governance in Africa relative to global standards and practices. *IOSR. Journal of Computer Engineering*. [Online]. Available WWW: <https://doi.org/10.9790/0661-2605031925> (Accessed 01 May 2025).
- Ngulube, P. and Tafor, V. F. 2021. Harnessing artificial intelligence in African archives and records management: opportunities and challenges. *African Journal of Library, Archives and Information Science*, 31(2): 137-149.
- Ngulube, P. and Tafor, V. F. 2022. Digital preservation in African institutions. *African Journal of Library, Archives and Information Science* 32(1): 15-32.
- Nhambura, C. 2025. Leveraging artificial intelligence for enhanced public records security in Zimbabwe. *Advances in Computational Intelligence and Robotics Book Series*, pp. 31-56. [Online]. Available WWW: <https://doi.org/10.4018/979-8-3693-9795-4.ch002> (Accessed 30 May 2025).
- Obaido, G. 2023. Digital literacy, skills mapping, and the adoption of artificial intelligence in African records management. *Records and Information Management Journal* 33(2): 101-117. [Online]. Available WWW: <https://doi.org/10.1108/RIMJ-01-2023-0004> (Accessed 15 June 2025).
- Ochara, N. M. 2023. Towards AI-driven governance in Africa: challenges and opportunities. *Government Information Quarterly*, 40(2): 101785.
- Otu, S. E. and Okon, E. E. 2023. Artificial intelligence and digital preservation of records in African archival institutions: a conceptual review. *Journal of African Information Science*, 15 (1): 45-60.

- Pancholi, P.D., Patel, S.B., Patel, S., Patel, J.N. and Darji, D.A. 2025. Performance optimization in records management artificial intelligence-driven strategies. *Advances in Computational Intelligence and Robotics Book Series*, pp. 393-424. [Online]. Available WWW: <https://doi.org/10.4018/979-8-3693-9795-4.ch014> (Accessed 13 May 2025).
- Patterson, L. 2017. Digital preservation in South Africa's public archives. *Journal Of the South African Society of Archivists* 50: 38-50.
- Rolan, G., Humphries, G., Jeffrey, L., Samaras, E., Antsoupova, T., and Stuart, K. 2019. Morehuman than human? artificial intelligence in the archive. *Archives & Manuscripts* 47(2):179-203. [Online]. Available WWW: <https://doi.org/10.1080/01576895.2018.1502088> (Accessed 23 May 2025)
- Sibanda, M. 2025. Navigating the double-edged sword. *Advances in Computational Intelligence and Robotics Book Series*, pp. 57-84. [Online]. Available WWW: <https://doi.org/10.4018/979-8-3693-9795-4.ch003> (Accessed 24 May 2025).
- Schellnack-Kelly, I. and Modiba, M. 2024. Developing smart archives in Society 5.0: Leveraging artificial intelligence for managing audiovisual archives in Africa. [Online]. Available WWW: <https://doi.org/10.25159/unisarxiv/000072.v1> (Accessed 22 August 2025).
- Shonhe, L. 2025. Integration of artificial intelligence in archives and records management. *Advances in Computational Intelligence and Robotics Book Series*, pp. 85-126. [Online] Available WWW: <https://doi.org/10.4018/979-8-3693-9795-4.ch004> (Accessed 24 June 2025).
- Shonhe, L. and Kolobe, M. 2023. A glimpse into Botswana's AI readiness landscape. *JeDEM – eJournal of eDemocracy and Open Government*, 15(2): 37-67. [Online]. Available WWW: <https://doi.org/10.29379/jedem.v15i2.812> (Accessed 19 May 2025).
- Shonhe, L., Min, Q. and Phuti, R. 2024. Government AI readiness in the ESARBICA community: findings from the Oxford Insights AI Readiness Index 2022. *ESARBICA Journal* 43: 84-101. [Online]. Available WWW: <https://doi.org/10.4314/esarj.v43i1.6> (Accessed 21 May 2025).
- Sikhakhane, M. 2025. Proficiency of records practitioners using artificial intelligence to enhance records management practices at the Gauteng Department of Education in South Africa. *Collection and Curation* 44(3): 82-89. [Online]. Available WWW: <https://doi.org/10.1108/CC-08-2024-0039> (Accessed 25 September 2025).
- Sithole, N. and Chigada, J. 2021. Artificial intelligence and the digital divide in Africa. *South African Journal of Information Management* 23(1): 1-8.
- Svärd, P., Guerrero, E., Balogun, T., Saurombe, N., Jacobs, L. and Henttonen, P. 2024. Local regulations for the use of artificial intelligence in the management of public records – a literature review. *Records Management Journal*. [Online]. Available WWW: <https://doi.org/10.1108/rmj-10-2023-0061> (Accessed 25 May 2025).
- Tsabedze, V. 2023. Managing records in the age of artificial intelligence: how prepared are archives and records management professionals in Eswatini? *Internet Reference Services Quarterly*. [Online]. Available WWW: <https://doi.org/10.1080/10875301.2023.2284898> (Accessed 14 May 2025).
- UNESCO. 2021. *Recommendation on the ethics of artificial intelligence*. [Online]. Available: WWW: <https://unesdoc.unesco.org> (Accessed 08 May 2025).
- Wamukoya, J. and Mutula, S. 2005. E-records management and governance in East and Southern Africa: Initiatives, challenges, and opportunities. *Records Management Journal* 15(2): 71-79. [Online]. Available WWW: <https://doi.org/10.1108/09565690510614265> (Accessed 18 May 2025).